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## BLOCKCHAIN TECHNOLOGY IN TRAVEL: ENSURING TRUST AND TRANSPARENCY

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### Abstract

*This comprehensive article examines the transformative role of blockchain technology in addressing trust and transparency challenges within the travel industry. The article explores how blockchain solutions are revolutionizing key areas including review verification, booking management, and supply chain transparency. Through case studies of pioneering implementations like Winding Tree and Webjet, the article demonstrates blockchain's capacity to reduce fraudulent activities, streamline operations, and enhance customer trust. The article also investigates how smart contracts automate and secure transactions between travel stakeholders, while analyzing the technology's impact on supplier relationships and service delivery. Additionally, the article examines emerging opportunities in tokenized loyalty programs and decentralized marketplaces, providing insights into the future evolution of blockchain in travel services.*

### Author Keywords

Blockchain Technology, Travel Industry Trust, Supply Chain Transparency, Smart Contracts, Digital Transformation.

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### Reference

[1] World Travel & Tourism Council, "Travel & Tourism Economic Impact 2023, " WTTC Research, 2023. Available: [https://assets-global.website-files.com/6329bc97af73223b575983ac/647df24b7c4bf560880560f9\\_EIR2023-APEC.pdf](https://assets-global.website-files.com/6329bc97af73223b575983ac/647df24b7c4bf560880560f9_EIR2023-APEC.pdf)

[2] Mansur Beştaş, "Evaluation of Blockchain Technology in the Context of Tourism Sector within the Framework of Diffusion of Innovation Theory: Challenges and Opportunities, " *Journal of Innovative Science, Engineering & Management*, vol. 10, no. 2, pp. 42-57, 2024. Available: <https://www.jisem-journal.com/download/evaluation-of-blockchain-technology-in-the-context-of-tourism-sector-within-the-framework-of-15197.pdf>

[3] Ibrahim A. Elshaer, et al., "Building Digital Trust and Rapport in the Tourism Industry: A Bibliometric Analysis and Detailed Overview," *Information*, vol. 15, no. 10, pp. 598, 2024. Available: <https://www.mdpi.com/2078-2489/15/10/598>

[4] Umesh Bodkhe, Pronaya Bhattacharya, et al., "BloHosT: Blockchain-Enabled Smart Tourism and Hospitality Management," *International Conference on Computer, Information and Telecommunication Systems (CITS)*, 2019. Available: <https://ieeexplore.ieee.org/abstract/document/8862001>

[5] Roberto Leonardo Rana et al., "The Impact of Blockchain Technology Adoption on Tourism Industry: A Systematic Literature Review," *Sustainability*, vol. 14, no. 12, pp. 7383, 2022. Available: <https://www.mdpi.com/2071-1050/14/12/7383>

[6] Chun He, Caijian Hua, "A Blockchain-Based Framework for Smart Tourism," *Journal of Computer and Communications*, Vol.11 No.7, July 2023. Available: <https://www.scirp.org/journal/paperinformation?paperid=126666>

[7] Guang-Xin Gao and Jian-Wu Bi, "Online travel agency or blockchain-based platform?," *Annals of Tourism Research*, vol. 96, pp. 103691, 2024. Available: <https://www.sciencedirect.com/science/article/abs/pii/S0160738324001233>

[8] Ali Ihsan Ozdemir, Ilker Murat Ar & Ismail Erol, "Assessment of blockchain applications in travel and tourism industry," *Quality & Quantity*, vol. 54, pp. 1367-1388, 2020. [Online]. Available: <https://link.springer.com/article/10.1007/s11135-019-00901-w>

[9] Vittorio Capocasale And Guido Perboli, "Standardizing Smart Contracts," *IEEE Access*, vol. 10, pp.99015-99033,2022.Available:<https://ieeexplore.ieee.org/stamp/stamp.jsp?arnumber=9869650>

[10] B C Girish Kumar, Parma Nand, et al., "Opportunities and Challenges of Blockchain Technology for Tourism Industry in Future Smart Society," *IEEE Fifth International Conference on Computational Intelligence and Communication Technologies (CCICT)*, 2022.Available: <https://ieeexplore.ieee.org/document/9913552>

[11] Sreejith Balasubramanian, Jaspreet Singh Sethi, et al., "An enabling Framework for Blockchain in Tourism," *International Journal of Tourism Policy*, vol. 12, no. 3, 2022. Available: <https://link.springer.com/article/10.1007/s40558-022-00229-6>

[12] Tung Thanh Nguyen, Thong Tri Truong and Ly Thi Da Nguyen, "Blockchain in Hospitality and Tourism: A Game-Changer for Asian Markets," *International Journal of Research Publication and Reviews*, Vol 4, no 6, pp 3209-3213 June 2023. Available: <https://ijrpr.com/uploads/V4ISSUE6/IJRPR14508.pdf>

[13] Elena Panina, Rima Simbuletov and Zarema Kakhuzheva, "Analysis of the applicability of blockchain technology in tourism," *SHS Web of Conferences*, vol. 141, pp. 01007, 2022.Available: [https://www.shs-conferences.org/articles/shsconf/pdf/2022/11/shsconf\\_mtde2022\\_01007.pdf](https://www.shs-conferences.org/articles/shsconf/pdf/2022/11/shsconf_mtde2022_01007.pdf)

[14] Kenneth Li-Minn Ang et al., "Emerging Technologies for Smart Cities' Transportation: Geo-Information, Data Analytics and Machine Learning Approaches," *ISPRS Int. J. Geo-Inf.* 2022, 11(2), 85. Available: <https://www.mdpi.com/2220-9964/11/2/85>.